United States Department of Agriculture
Science and Education Administration
Agricultural Research Western Region
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YPLSF
1.3

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NPL - F1

Mr. Russell H. Wyer, Director
Hazardous Site Control Division
Office of Emergency and Remedial Response
U. S. Environmental Protection Agency
401 M Street, S. W.
Washington, D. C. 20460

Dear Mr. Wyer:

The Yakima Agricultural Research Laboratory, U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), has been included on the National Priorities List (NPL) as part of the proposed amended National Oil and Hazardous Substances Contingency Plan (NCP) as published in the Federal Register December 30, 1982 (47 FR 58476). In reviewing the data and scores from the Hazardous Ranking Score (HRS) sheets, ARS would like to provide additional evidence for use in reduction of the correlation of the alleged potential hazard for the assignment of scores. We feel this additional evidence will sufficiently lower the HRS well below 28.50 (the cutoff for inclusion on the list) and remove the Yakima facility from the list.

The specific information and comments on the HRS are as follows:

1) Hazardous Ranking System (HRS) Cover Sheet

The proper name of the USDA facility should be accurately stated, Yakima Agricultural Research Laboratory, not "Pesticide Pit-Yakima". The general description of the facility states Yakima is an "Agricultural experimental station handling small quantities of all sorts of pesticides and disposing of them by flushing into a septic tank drain field." This is a supposition, not fact, and unduly overstates the situation. The Yakima Agricultural Research Laboratory handles small quantities of a variety of pesticides but does not dispose of them in the drain field system. The location has been registered as a generator/transport/storage/disposal facility since November 10, 1980, and disposes of its waste chemicals at the Arlington, Oregon, approved landfill which is documented on waste disposal manifests. The drain field system was used for washing out pesticide containers and applicator equipment which is not a continuous operation, but periodic as well as seasonal. The drain field terminates under a field plot.

2) Ground Water Route Sheet

Depth to Aquifer: A (3) is assigned which is 0-20 feet depth to aquifer of concern [21-75 feet would be a (2)]. Narrative estimates 8 to 15 feet depth of a high seasonal level. The Washington State Department of Ecology (DOE) in gathering information for this report drilled 21 feet. The drill and drill engine broke at this depth, and they were forced to stop after being unable to advance any further, (August 31, 1982, Report from DOE to John Osborn on Yakima Results). An assignment of (3) is inconsistent with these findings.

3) Containment

Drain fields were not addressed in Table 9 (47 FR 31236, July 16, 1982) which explains how this score is tabulated. Yakima was assigned the highest value (3) which seems excessive. Because the drain field is a covered underground system and it should be compared to a waste pile (piles covered, waste unconsolidated, diversion or containment system not adequate) for a value of (1), or as a landfill with adequate cover material for a value of (0).

4) Waste Characteristics

The Yakima Laboratory was assigned the highest category for toxicity/persistence (18). This was derived from a matrix score for the highest persistence compounds; metals, polycyclic compounds, and halogenated hydrocarbons (3) combined with the highest SAX toxicity score (3). The DOE report (July 7, 1982) listed DDT as the compound with the highest score. The last time DDT was used at the Yakima facility was in 1967 in which a small amount was applied on a small plot to determine the depth of migration into the soil. This was the first time since 1959 that DDT was used on the site. Recent sampling has shown no detectable residues of DDT in the area (data available on request). The information in the DOE report was obtained from an employee of the laboratory, and the employee named in the report states he did not indicate to DOE that DDT was or has been used on the location.

5) Targets

Use Within 3 Miles of the Site:

A (3) value, drinking water; no municipal water from alternate unthreatened sources presently available was assigned. The narrative states the aquifer is used for drinking water and irrigation within 3 miles of the site. The closest ((b)(6) ) well was rated a (3), 2001 feet to one mile from the site. The population served by the two wells is listed as being greater than 10,000, a value of (5). The narrative estimates that 50,000 people are served by these wells. However, irrigated land is counted as 1.5 persons per acre, and these combined values resulted in the second highest matrix score of 35. The (b)(6) well may be used for drinking water, but the airport and (proximity which is well within 3 miles of the site) is on municipal water. We feel there is insufficient justification for DOE's conclusions and assignment of these scores.

6) Surface Water Route Work Sheet

Distance to Surface Water:

A rating of (2) or equivalent to 1,000 feet to 1 mile. The nearest surface water is listed as Wide Hollow Creek, 2,000 feet away from the site, a continuously running creek. Normally, a drain field is an underground sealed system that does not allow its contents to come to the surface. Consequently, there should be no surface pollution to affect runoff and should not be considered a hazard to surface water.

7) Targets

Surface Water Use:

A value of (2) means irrigation of economically important resources; (e.g., shellfish) commercial food preparation, or recreation (e.g., fishing, boating, or swimming). Wide Hollow Creek is used for bank-fishing and domestic irrigation.

Summary of Comments on HRS Sheets:

If the values assigned to Item 3, Containment, is lowered to (1) as supported by the above additional evidence, it would change the score on the Groundwater Work Sheet to 11x1x19x44=9,196 instead of 27,588, and a final score, Sgw=16.04 instead of 48.12. The score on the Surface Water Sheet likewise would change to 7x1x19x18=2,394 instead of 7,182 resulting in a final score of Sgw=3.72 instead of 11.16. Using these new figures to compute the new HRS score would result in 11, a significant difference that would be well below the cutoff for listing.

Similar challenges could be made for other entries on the information regarding the Wide Hollow Creek and the use of the two nearby wells for drinking water, but the changes in the results would be less dramatic.

Plan of Action

To substantiate the above interpretation and to show that no harmful residues are present in the drain field, ARS has initiated the following plan of action:

1) Soil sampling (at various depths) will be taken in areas near the drain field to determine detectable pesticide residue levels if present.

2) Soil sampling (at various depths) will be taken downstream side to show no movement has occurred.

3) Soil sampling (at varying depths) will be taken upstream side and used as control.

4) Samples will be analyzed by the Yakima Laboratory. Duplicate set of samples will be frozen and can be analyzed by another laboratory and/or be available for additional analysis if questions are raised on the original analysis and/or procedure.
5) Results will be shared with the U.S. Environmental Protection Agency and the Washington State Department of Ecology.

A protocol of this work has been provided to the U.S. Environmental Protection Agency and the Washington State Department of Ecology.

USDA/ARS resources will be used to conduct this study and for additional work if needed in order to satisfy State and Federal waste requirements.

We feel that sufficient evidence has been provided and that an appropriate action plan as followup is provided for removal of the Yakima Agricultural Research Laboratory from the National Priorities List.

Sincerely,

H C COX
Regional Administrator